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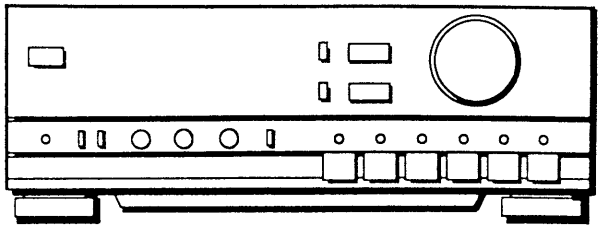
AIWA®

XA-005

SERVICE MANUAL



STEREO INTEGRATED AMPLIFIER

• TYPE. H,E,K,Z

SPECIFICATIONS

Common

Power requirements	XA-005E, Z 220 V, 50 Hz XA-005K 240 V, 50 Hz XA-005H 120 V/220 V/240 V (switchable), 50/60 Hz
Power consumption	XA-005E, K, Z 350 W XA-005H 125 W

Power amplifier

Effective output power	70 W+70 W (4 ohms, T.H.D. 0.9%, 1 kHz) 50 W+50 W (8 ohms, T.H.D. 0.9%, 1 kHz)
Total harmonic distortion	0.05% (20 Hz–20 kHz, 40 W, 8 ohms)
Output bandwidth	20 Hz–20 kHz (less than 0.05%) [Both channels driven, 8 ohms]
Frequency response	5 Hz–100 kHz (+0.5/–3 dB)

Preamplifier

S/N ratio	IHF A curve short circuited PHONO (MM) 85 dB (5 mV INPUT) TUNER, DAT, VCR (AUX), TAPE 100 dB
Input jacks (Sensitivity/input impedance)	PHONO (MM) 2.5 mV/47 kohms TUNER, DAT, VCR (AUX), TAPE 150 mV/47 kohms CD 150 mV/47 kohms
PHONO overload level	85 mV (MM) [1 kHz, THD 0.01%]
Output jacks (Level/output impedance)	TAPE 150 mV/47 kohms Headphones 8–32 ohms Speakers 4–16 ohms (A+B: 8–16 ohms)
RIAA deviation	±0.5 dB (30 Hz–15 kHz)
Dimensions	430(W) × 140(H) × 320(D) mm
Weight	7 kg

• Design and specifications are subject to change without notice.

AIWA Co., Ltd.

Tokyo Japan

Printed in Japan

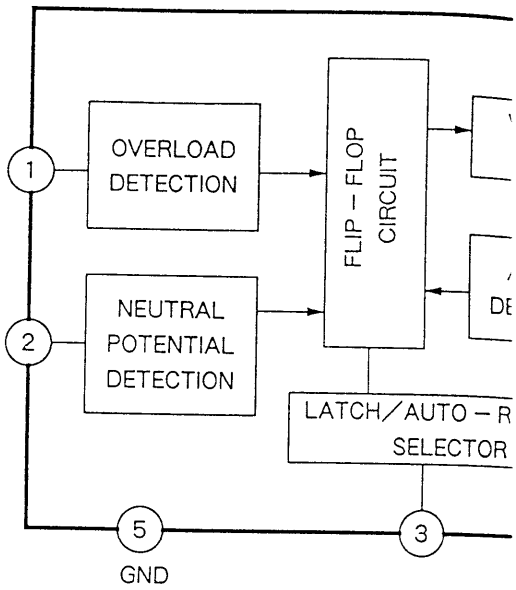
ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
===IC===		
	87-001-171-019	IC, NJM2068D
	87-027-897-019	IC, UPC1225H
	87-027-787-019	IC, UPC1237H
===TRANSISTOR===		
	89-110-155-019	TRANSISTOR, 2SA1015(GR)
	89-112-642-010	TRANSISTOR, 2SA1264(R, O)
	89-210-155-019	TRANSISTOR, 2SB1015
	89-322-405-019	TRANSISTOR, 2SC2240(GR)
	89-331-812-010	TRANSISTOR, 2SC3181(R, O)
	89-334-194-019	TRANSISTOR, 2SC3419Y
	89-414-065-019	TRANSISTOR, 2SD1406 GR
===DIODE===		
	87-020-110-019	DIODE 1SS177
	87-020-123-019	DIODE DS446
	87-001-135-010	DIODE KBU8DL
	87-020-945-010	DIODE MPG06D
	87-027-449-019	DIODE, ZENER HZ15-3L
===MAIN CIRCUIT BOARD SECTION===		
⚠	*87-033-147-019	FUSE CLAMP
C1	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C2	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C3	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C4	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C5	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C6	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C7	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C8	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C9	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C10	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C11	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C12	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C13	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C14	*87-018-121-019	CAP, CERA-SOL SS 150P(Z)
C21	*87-010-404-019	CAP, ELECT 4.7-50V SME
C22	*87-010-404-019	CAP, ELECT 4.7-50V SME
C23	*87-018-121-019	CAP, CERA-SOL SS 150P
C24	*87-018-121-019	CAP, CERA-SOL SS 150P
C25	*87-010-370-019	CAP, ELECT 330-6.3V
C26	*87-010-370-019	CAP, ELECT 330-6.3V
C33	*87-010-404-019	CAP, ELECT 4.7-50V SME
C34	*87-010-404-019	CAP, ELECT 4.7-50V SME
C35	*87-010-260-019	CAP, ELECT 47-25V
C36	*87-010-260-019	CAP, ELECT 47-25V
C37	*87-012-110-019	CAP, CERA-SOL 270P BEAD(Z)
C38	*87-012-110-019	CAP, CERA-SOL 270P BEAD(Z)
C45	*87-010-405-019	CAP, ELECT 10-50V SME
C46	*87-010-405-019	CAP, ELECT 10-50V SME
C49	*87-018-131-019	CAP, CERA-SOL SS 1000P
C50	*87-018-131-019	CAP, CERA-SOL SS 1000P
C51	*87-010-247-019	CAP, ELECT 100-50 SME
C52	*87-010-247-019	CAP, ELECT 100-50 SME
C55	*87-010-405-019	CAP, ELECT 10-50V SME
C56	*87-010-405-019	CAP, ELECT 10-50V SME
C70	*87-010-401-019	CAP, ELECT 1-50V
C71	*87-018-131-019	CAP, CERA-SOL SS 1000P
C72	*87-010-762-019	CAP, ELECT 220-10 BP
C74	*87-010-403-019	CAP, ELECT 3.3-50V SME
C75	*87-010-260-019	CAP, ELECT 47-25V
C81	*87-010-260-019	CAP, ELECT 47-25V
C82	*87-010-260-019	CAP, ELECT 47-25V
C83	*87-010-401-019	CAP, ELECT 1-50V
C84	*87-010-401-019	CAP, ELECT 1-50V
C85	*87-010-756-019	CAP, ELECT 6800-50
C86	*87-010-756-019	CAP, ELECT 6800-50
C91	*87-018-134-019	CAP, CERA-SOL SS 0.01
C231	*87-014-210-010	CAP, MYLAR 0.047-250V(Z)
C232	*87-014-210-010	CAP, MYLAR 0.047-250V(Z)
⚠FU1	87-035-254-010	FUSE 2.5A(H)
⚠FU1	87-035-370-010	FUSE T6.3A 250V(E, K, Z)
⚠FU2	87-035-254-010	FUSE 2.5A(H)
⚠FU2	87-035-370-010	FUSE T6.3A 250V(E, K, Z)
J2	87-009-023-019	JACK PIN YKC21-0349(PHONO)(TUNER)
J3	87-049-868-019	JACK PIN 4P(CD)(VCR/AUX)
J4	87-049-868-019	JACK PIN 4P(TAPE2/DAT)
J5	87-049-868-019	JACK PIN 4P(TAPE1)
L1	*87-005-158-010	COIL 1UH
L2	*87-005-158-010	COIL 1UH
LED1	87-001-779-019	LED SLH56VC RED-F(PHONO IND.)
LED2	87-001-779-019	LED SLH56VC RED-F(TUNER IND.)
LED3	87-001-779-019	LED SLH56VC RED-F(CD IND.)
LED4	87-001-779-019	LED SLH56VC RED-F(VCR/AUX IND.)
LED5	87-001-779-019	LED SLH56VC RED-F(TAPE2/DAT IND.)
LED6	87-001-779-019	LED SLH56VC RED-F(TAPE1/ MONITOR IND.)
R73	*87-025-120-010	RES, MFO 10-1W
R74	*87-025-120-010	RES, MFO 10-1W
R75	*87-025-434-010	RES, CEMENT 0.22-5W
R76	*87-025-434-010	RES, CEMENT 0.22-5W
R77	*87-025-434-010	RES, CEMENT 0.22-5W
R78	*87-025-434-010	RES, CEMENT 0.22-5W
R91	*87-025-194-010	RES, MFO 220-2W
R92	*87-025-194-010	RES, MFO 220-2W
⚠R100	87-029-017-019	RES, FUSE 10-1/4W
⚠R101	87-029-017-019	RES, FUSE 10-1/4W
⚠R102	87-029-124-019	RWS, FUSE 2.2-1/4W
RY1	87-045-281-010	RELAY, G5R24VSP
SFR1	*87-024-165-019	SFR 220
SFR2	*87-024-165-019	SFR 220
SW1	89-AA2-620-019	PUSH SW(PHONO)
SW2	+ + +	PUSH SW(TUNER)
SW3	+ + +	PUSH SW(CD)
SW4	+ + +	PUSH SW(VCR/AUX)
SW5	+ + +	PUSH SW(TAPE2/DAT)
SW6	+ + +	PUSH SW(TAPE1/MONITOR)
TH1	82-304-722-010	THERMISTER 42D26
TH2	82-304-722-010	THERMISTER 42D26
===FRONT CIRCUIT BOARD SECTION===		
C151	*87-018-126-019	CAP, CERA-SOL SS 390P
C152	*87-018-126-019	CAP, CERA-SOL SS 390P
C155	*87-010-401-019	CAP, ELECT 1-50V
C156	*87-010-401-019	CAP, ELECT 1-50V
C157	*87-018-121-019	CAP, CERA-SOL SS 150P
C158	*87-018-121-019	CAP, CERA-SOL SS 150P
C159	*87-010-403-019	CAP, ELECT 3.3-50V SME
C160	*87-010-403-019	CAP, ELECT 3.3-50V SME
C167	*87-018-123-019	CAP, CERA-SOL SS 220P
C168	*87-018-123-019	CAP, CERA-SOL SS 220P
C171	*87-010-260-019	CAP, ELECT 47-25V
C172	*87-010-260-019	CAP, ELECT 47-25V
C171	*87-010-260-019	CAP, ELECT 47-25V
C172	*87-010-260-019	CAP, ELECT 47-25V
C173	*87-010-404-019	CAP, ELECT 4.7-50V SME
C174	*87-010-404-019	CAP, ELECT 4.7-50V SME
C175	*87-018-121-019	CAP, CERA-SOL SS 150P
C176	*87-018-121-019	CAP, CERA-SOL SS 150P
C177	*87-010-401-019	CAP, ELECT 1-50V
C178	*87-010-401-019	CAP, ELECT 1-50V
C179	*87-010-404-019	CAP, ELECT 4.7-50V SME
C180	*87-010-404-019	CAP, ELECT 4.7-50V SME
C181	*87-010-260-019	CAP, ELECT 47-25V

REF. NO.	PART NO.	DESCRIPTION
C182	*87-010-260-019	CAP, ELECT 47-25V
LED10	87-001-779-019	LED, SLH56VC RED-F(CD DIRECT IND.)
LED11	87-001-779-019	LED, SLH56VC RED-F(MUTING IND.)
SW10	87-036-179-019	PUSH SW(LOUDNESS)
SW11	87-036-180-019	PUSH SW(CD DIRECT)
SW12	87-036-180-019	PUSH SW(MUTING)
VR1	81-777-630-019	VOLUME 100KB(VOLUME)
VR2	81-777-631-019	VOLUME 100K MN(BALANCE)
VR3	81-777-632-019	VOLUME 50KC(BASS)
VR4	81-777-632-019	VOLUME 50KC(TREBLE)
	===SP TERMINAL CIRCUIT BOARD SECTION===	
C223	*87-018-134-019	CAP, CERA-SOL SS 0.01(Z)
C224	*87-018-134-019	CAP, CERA-SOL SS 0.01(Z)
C225	*87-018-134-019	CAP, CERA-SOL SS 0.01(Z)
C226	*87-018-134-019	CAP, CERA-SOL SS 0.01(Z)
C227	*87-018-133-019	CAP, CERA-SOL 4700P(Z)
C228	*87-018-133-019	CAP, CERA-SOL 4700P(Z)
J6	87-033-192-010	SPEAKER TERMINAL 8P(SPEAKERS)
	===SP+HP CIRCUIT BOARD SECTION===	
J1	87-009-169-010	JACK 6.3 STAU(PHONES)
R143	*87-025-458-010	RES, METAL 470-2W
R144	*87-025-458-010	RES, METAL 470-2W
SW8	89-AA1-632-019	PUSH SW(SPEAKER A)
SW9	89-AA1-632-019	PUSH SW(SPEAKER B)
	===POWER SW CIRCUIT BOARD SECTION===	
⚠	*87-033-147-019	FUSE CLAMP(E, K, Z)
⚠C87	*87-019-110-019	SPARK KILLER 0.01D(H)
⚠C87	*87-019-112-019	CAP, LINE 0.01(E, K, Z)
⚠FU3	87-035-366-010	FUSE T2.5A(E, K, Z)
⚠SW7	87-036-034-019	PUSH SW(POWER)
	===AC VOLTAGE CIRCUIT BOARD SECTION(H MODEL)===	
⚠	*87-033-147-019	FUSE CLAMP(H)
⚠FU5	87-035-365-010	FUSE T2A(H)
⚠FU6	87-035-365-010	FUSE T2A(H)
⚠SW18	87-036-067-019	SLIDE SW(AC VOLTAGE)(H)
	===OUTLET CIRCUIT BOARD SECTION(E, Z MODELS)===	
⚠	*87-033-147-019	FUSE CLAMP(E, Z)
⚠FU4	87-035-366-010	FUSE T2.5A(E, Z)
⚠J7	87-049-514-010	AC OUTLET E(AC OUTLET)(E, Z)
	===MISCELLANEOOUS===	
⚠	*82-187-796-019	AC CORD (BS)(K)
⚠	*82-187-797-019	AC CORD (E)(E, Z)
⚠	*87-034-749-019	AC CORD (H)(H)
⚠	*87-085-184-010	AC CORD BUSHING D(H)
⚠	*87-085-185-010	AC CORD BUSHING E(E, K, Z)
⚠J7	87-049-416-010	AC OUTLET K-N(AC OUTLET)(K)
⚠J7	87-049-017-019	AC OUTLET(AC OUTLET)(H)
⚠PT1	89-AA2-608-019	POWER TRANSFORMER E(E, Z)
⚠PT1	89-AA2-606-019	POWER TRANSFORMER H(H)
⚠PT1	89-AA2-609-019	POWER TRANSFORMER K(K)

IC BLOCK DIAGRAM

- IC, UPC1237H



DESCRIPTION

7-25V
RED-F(CD DIRECT IND.)
RED-F(MUTING IND.)
DNESS)

DIRECT)
NG)
(VOLUME)
MN(BALANCE)

(BASS)
TREBLE)

N===

SS 0.01(Z)
SS 0.01(Z)
SS 0.01(Z)
SS 0.01(Z)

4700P(Z)
4700P(Z)
INAL 8P(SPEAKERS)

U(PHONES)
0-2W
0-2W
KER A)

KER B)

, K, Z)
0.01D(H)
1(E, K, Z)
, K, Z)

R)

H MODEL)===

)

VOLTAGE)(H)

MODELS)===

, Z)
, Z)
AC OUTLET)(E, Z)

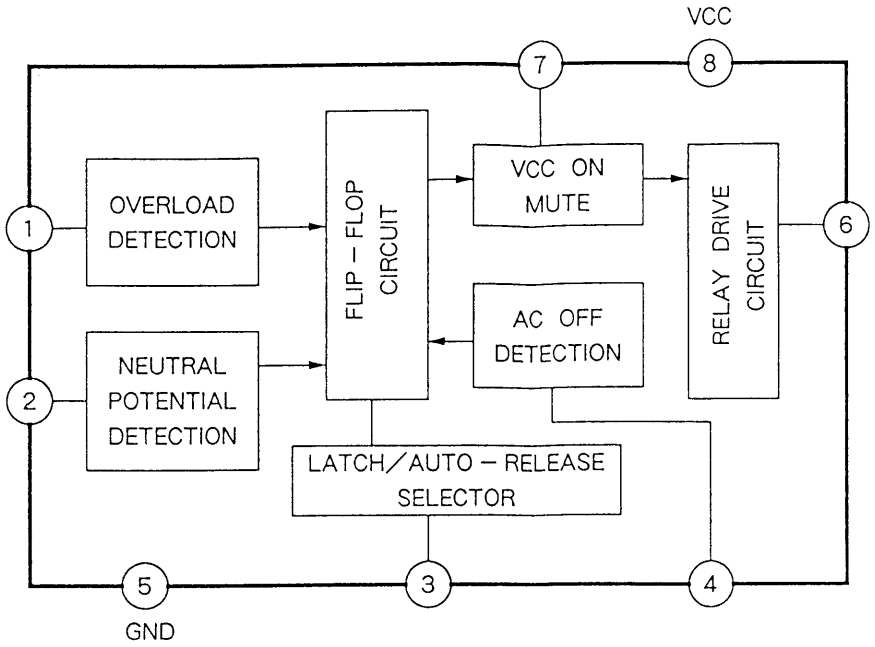
(K)
E, Z)
H)
ING D(H)

ING E(E, K, Z)
N(AC OUTLET)(K)
OUTLET)(H)
ORMER E(E, Z)

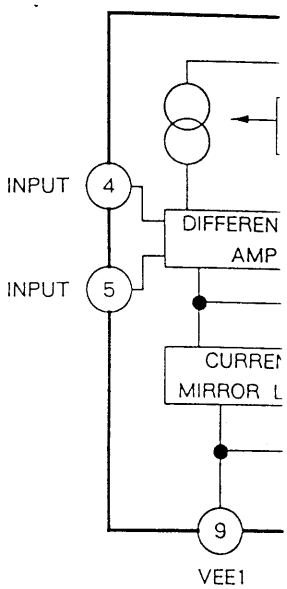
ORMER H(H)
ORMER K(K)

IC BLOCK DIAGRAM

• IC, UPC1237H



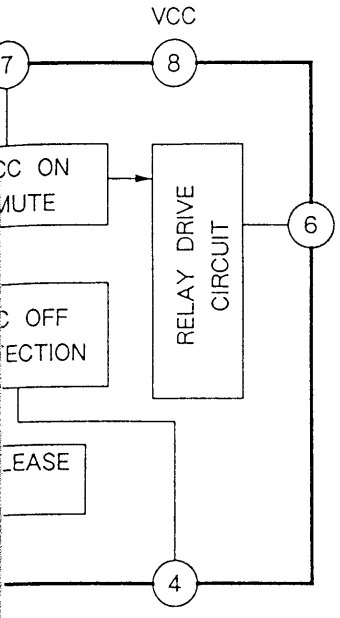
• IC, UPC1225H

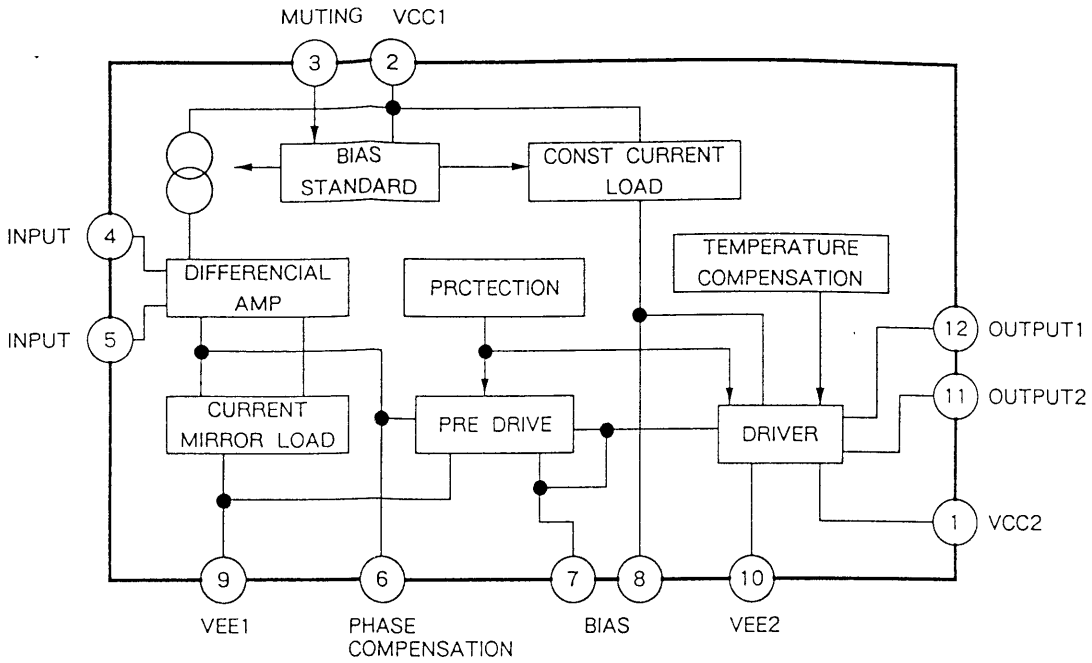


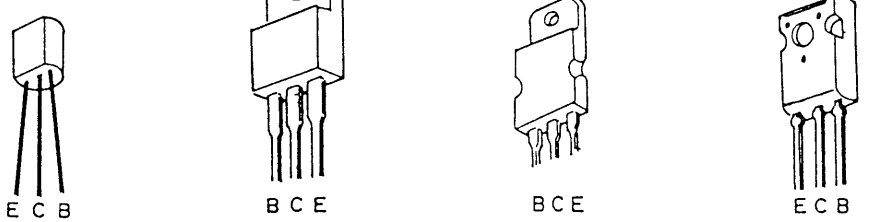
2SA1015
2SA1264
2SC2240

2SB
2SD

• IC, UPC1225H







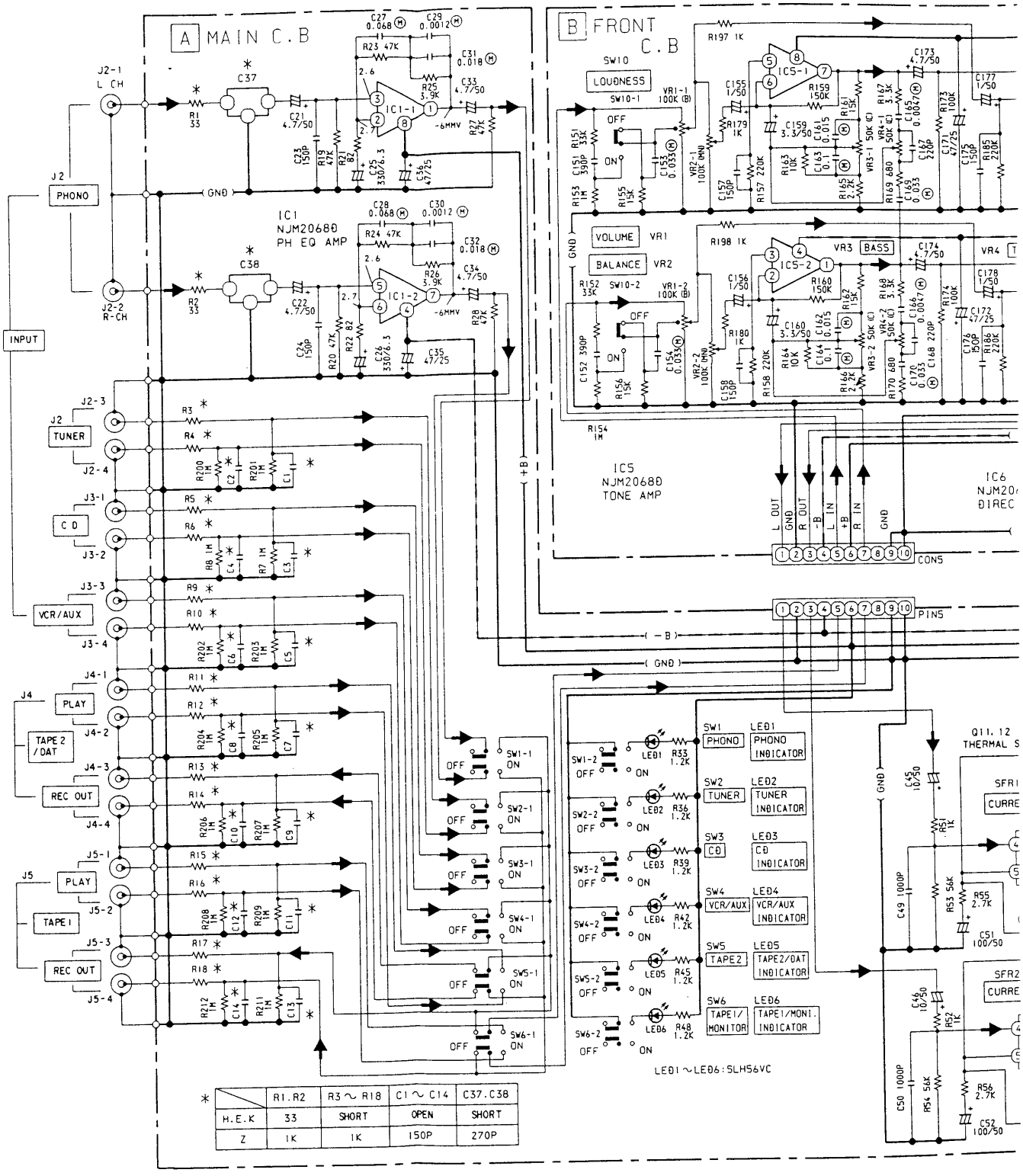
2SA1015
2SA1264
2SC2240

2SB1015
2SD1406

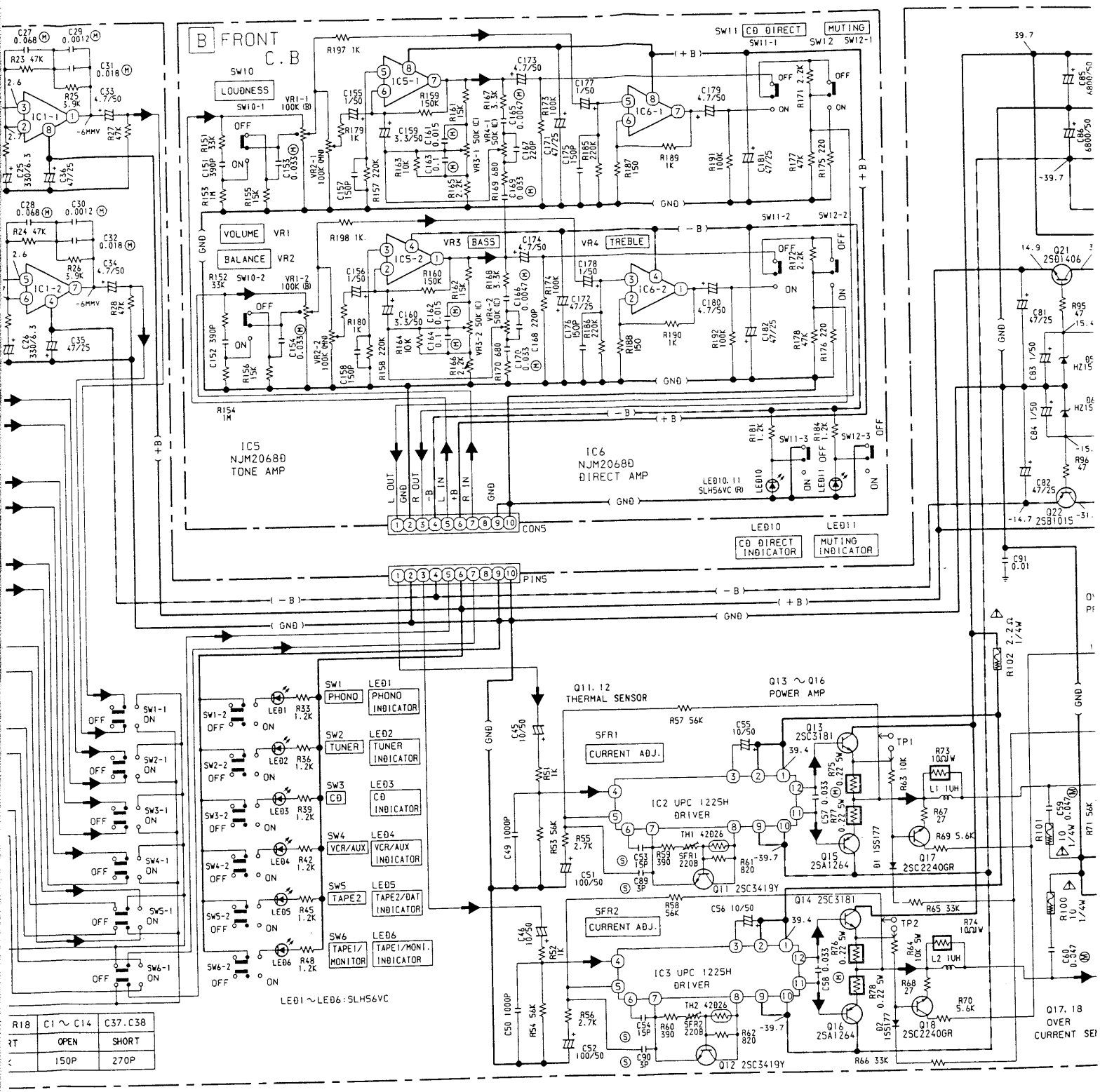
2SC3181

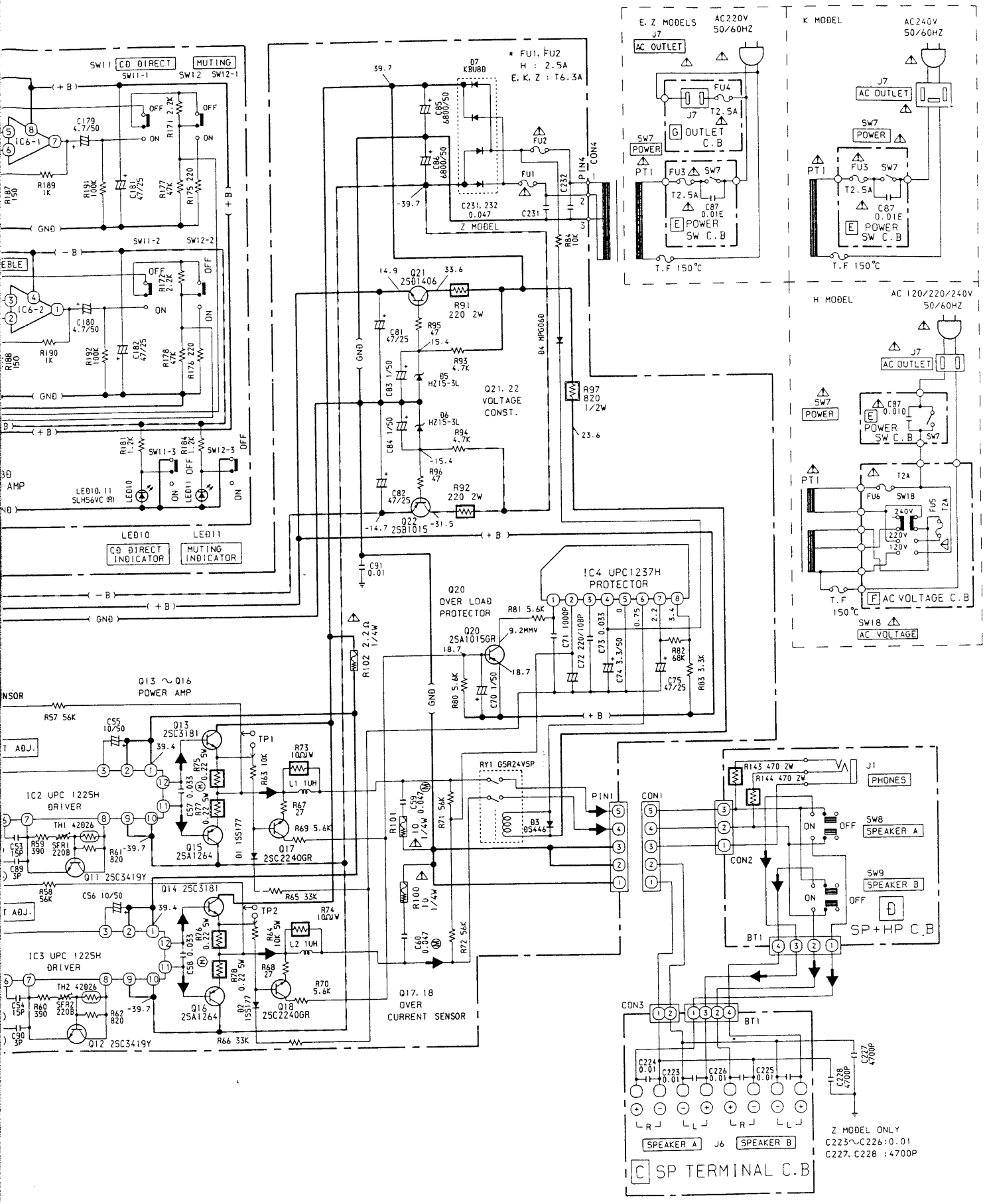
2SC3419

SCHEMATIC DIAGRAM

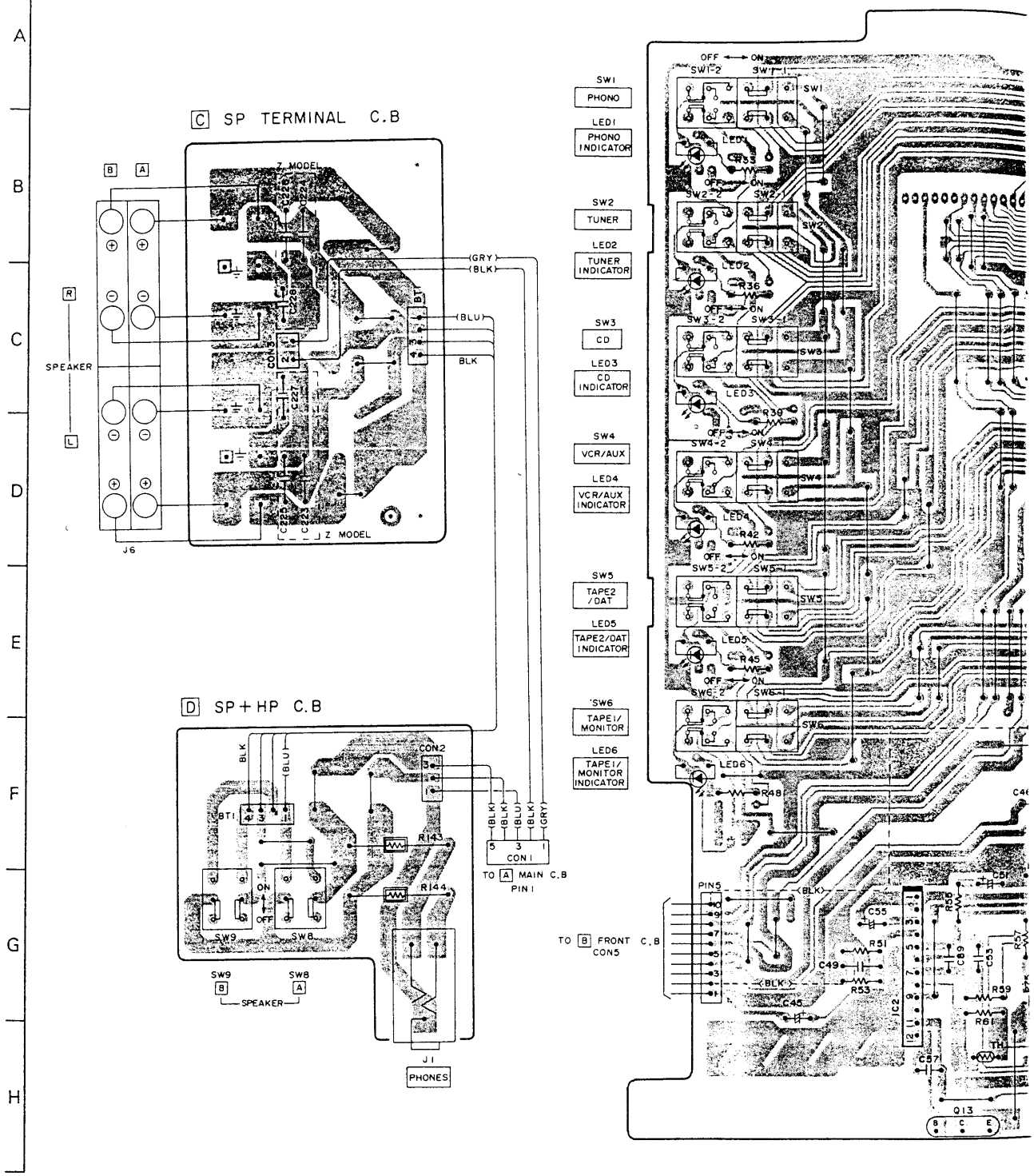


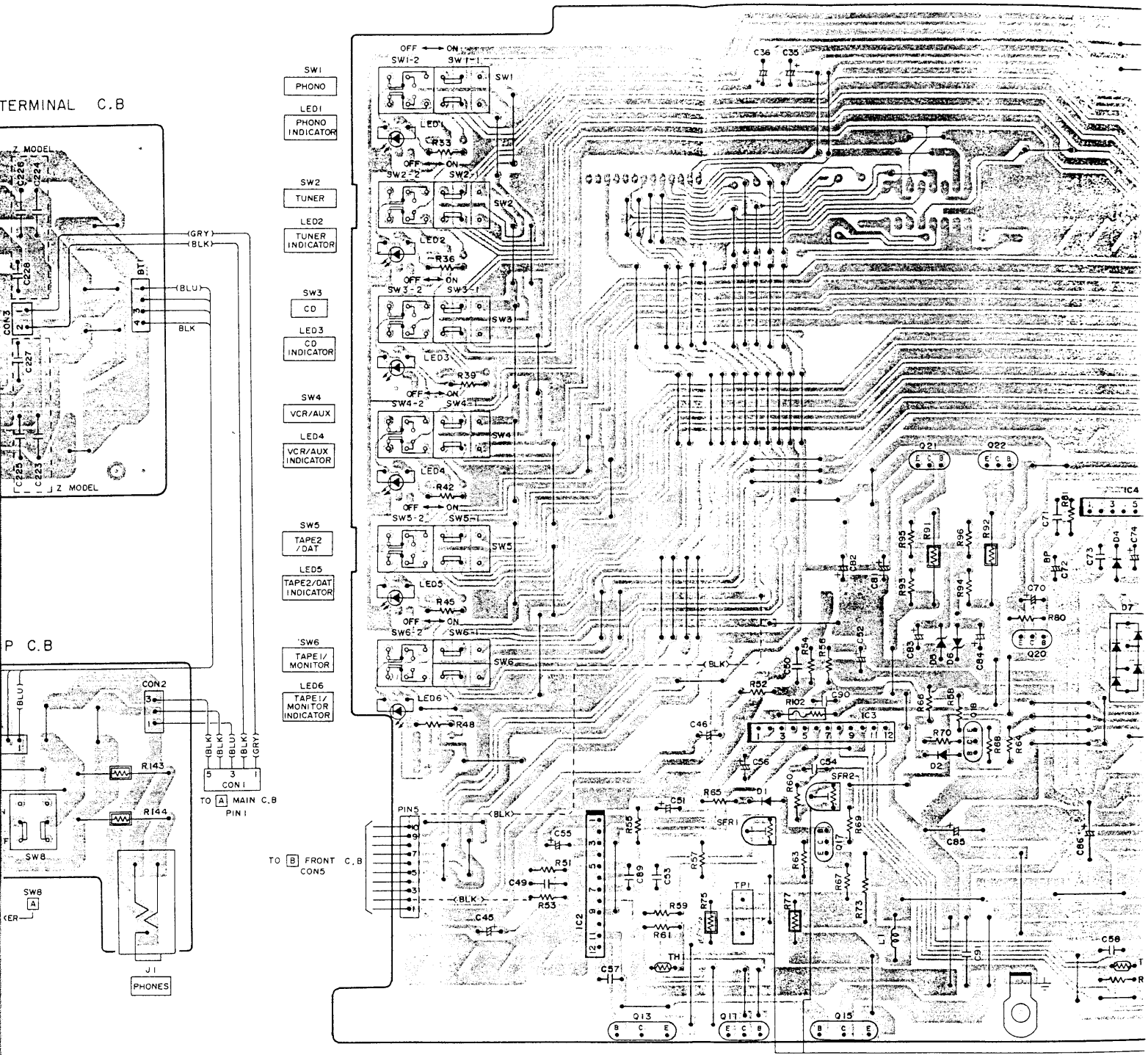
*	R1.R2	R3 ~ R18	C1 ~ C14	C37.C38
H.E.K	33	SHORT	OPEN	SHORT
Z	1K	1K	150P	270P

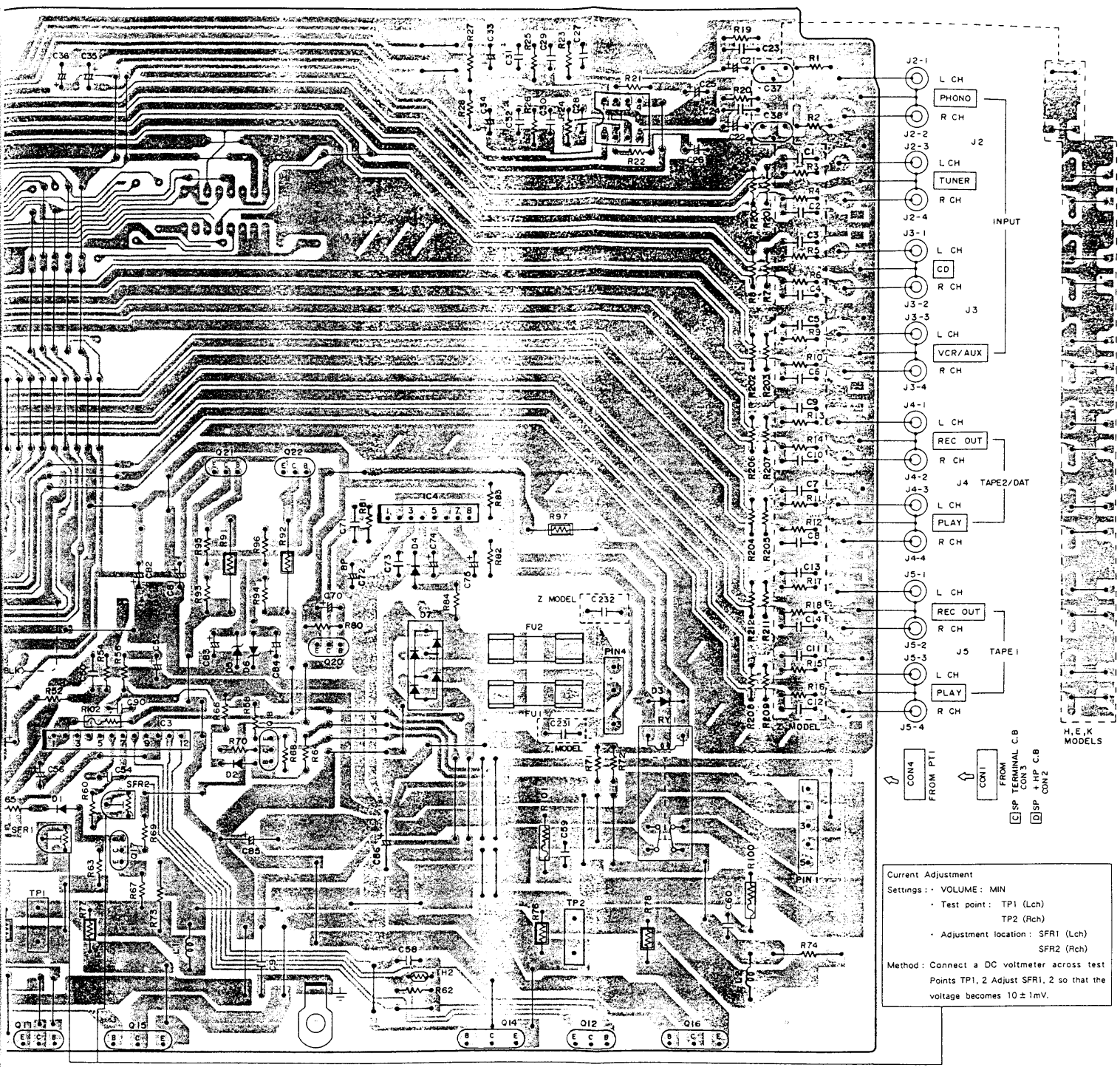

B FRONT C.B
SW10
LOUDNESS
VOLUME VR1
BALANCE VR2
VR3 BASS
VR4 TREBLE
SW11 CD DIRECT
SW12 MUTING
IC5 NJM2068D TONE AMP
IC6 NJM2068D DIRECT AMP
L OUT
GND
R OUT
-B
L IN
+B
R IN
GND
CON5
LED10 SLH56VC (R)
LED10 CD DIRECT INDICATOR
LED11 MUTING INDICATOR
PIN5
SW1 PHONO LED1 PHONO INDICATOR
SW2 TUNER LED2 TUNER INDICATOR
SW3 CD LED3 CD INDICATOR
SW4 VCR/AUX LED4 VCR/AUX INDICATOR
SW5 TAPE2 LED5 TAPE2/DAT INDICATOR
SW6 TAPE1/MONITOR LED6 TAPE1/MONI. INDICATOR
LED1~LED6:SLH56VC
Q11, 12 THERMAL SENSOR
Q13 ~ Q16 POWER AMP
SFR1 CURRENT ADJ.
SFR2 CURRENT ADJ.
IC2 UPC 1225H DRIVER
IC3 UPC 1225H DRIVER
Q13 2SC3181
Q14 2SC3181
Q15 2SA1264
Q16 2SA1264
Q17 2SC2240GR
Q18 2SC2240GR
Q11 2SC3419Y
Q12 2SC3419Y
Q17, 18 OVER CURRENT SE
TP1
TP2
R57 56K
R58 56K
R65 33K
R66 33K
R102 2.2Ω 1/4W
R18 | C1 ~ C14 | C37.C38
OPEN | SHORT
150P | 270P


E. Z MODELS
AC220V 50/60HZ
J7
AC OUTLET
FU4
T2.5A
G OUTLET C.B
SW7
POWER
PT1
FU3
T2.5A
C87 0.01E
E POWER SW C.B
T.F 150°C
K MODEL
AC240V 50/60HZ
H MODEL
AC 120/220/240V 50/60HZ
F AC VOLTAGE C.B
SW18
AC VOLTAGE
* FU1, FU2
H : 2.5A
E, K, Z : T6.3A
D7 KBU80
C85 6800/50
C86 6800/50
FU1
FU2
C231, 232 0.047
C231
C232
PIN4
CON4
Z MODEL
R84 10K
Q21 2SD1406
R91 220 2W
R95 47
R93 4.7K
D5 HZ15-3L
D6 HZ15-3L
R94 4.7K
R96 47
R92 220 2W
Q22 2SB1015
C81 47/25
C82 47/25
C83 1/50
C84 1/50
Q21, 22 VOLTAGE CONST.
R97 820 1/2W
D4 MPG060
SW11 CD DIRECT
SW12 MUTING
IC6-1
IC6-2
C179 4.7/50
C180 4.7/50
C181 47/25
C182 47/25
R171 2.2K
R172 2.2K
R175 220
R176 220
R177 47K
R178 47K
R189 1K
R190 1K
R191 100K
R192 100K
R187 150
R188 150
R181 1.2K
R184 1.2K
LED10, 11 SLH56VC (R)
LED10
LED11
CD DIRECT INDICATOR
MUTING INDICATOR
C91 0.01
Q20 OVER LOAD PROTECTOR
Q20 2SA1015GR
IC4 UPC1237H PROTECTOR
R81 5.6K
R82 68K
R83 3.3K
R80 5.6K
C70 1/50
C71 1000P
C72 220/10BP
C73 0.033
C74 3.3/50
C75 47/25
R102 2.2Ω 1/4W
Q13 ~ Q16 POWER AMP
R57 56K
C55 10/50
Q13 2SC3181
TP1
R73 10Ω 5W
L1 1UH
R63 10K
R75 0.22 5W
R67 27
R69 5.6K
Q15 2SA1264
Q17 2SC2240GR
D1 1SS177
IC2 UPC 1225H DRIVER
TH1 42026
R59 390
SFR1 220B
R61 820
C53 15P
C89 3P
Q11 2SC3419Y
R58 56K
C56 10/50
Q14 2SC3181
TP2
R74 10Ω 5W
L2 1UH
R64 10K
R76 0.22 5W
R68 27
R70 5.6K
Q16 2SA1264
Q18 2SC2240GR
D2 1SS177
IC3 UPC 1225H DRIVER
TH2 42026
R60 390
SFR2 220B
R62 820
C54 15P
C90 3P
Q12 2SC3419Y
R66 33K
Q17, 18 OVER CURRENT SENSOR
RY1 G5R24VSP
D3 05446
R101 10 1/4W
R100 10 1/4W
C59 0.047
C60 0.047
R71 56K
R72 56K
PIN1
CON1
CON2
R143 470 2W
R144 470 2W
J1 PHONES
SW8 SPEAKER A
SW9 SPEAKER B
SP+HP C.B
BT1
CON3
C224 0.01
C223 0.01
C226 0.01
C225 0.01
C228 4700P
C227 4700P
SPEAKER A
J6
SPEAKER B
C SP TERMINAL C.B
Z MODEL ONLY
C223~C226: 0.01
C227, C228 : 4700P

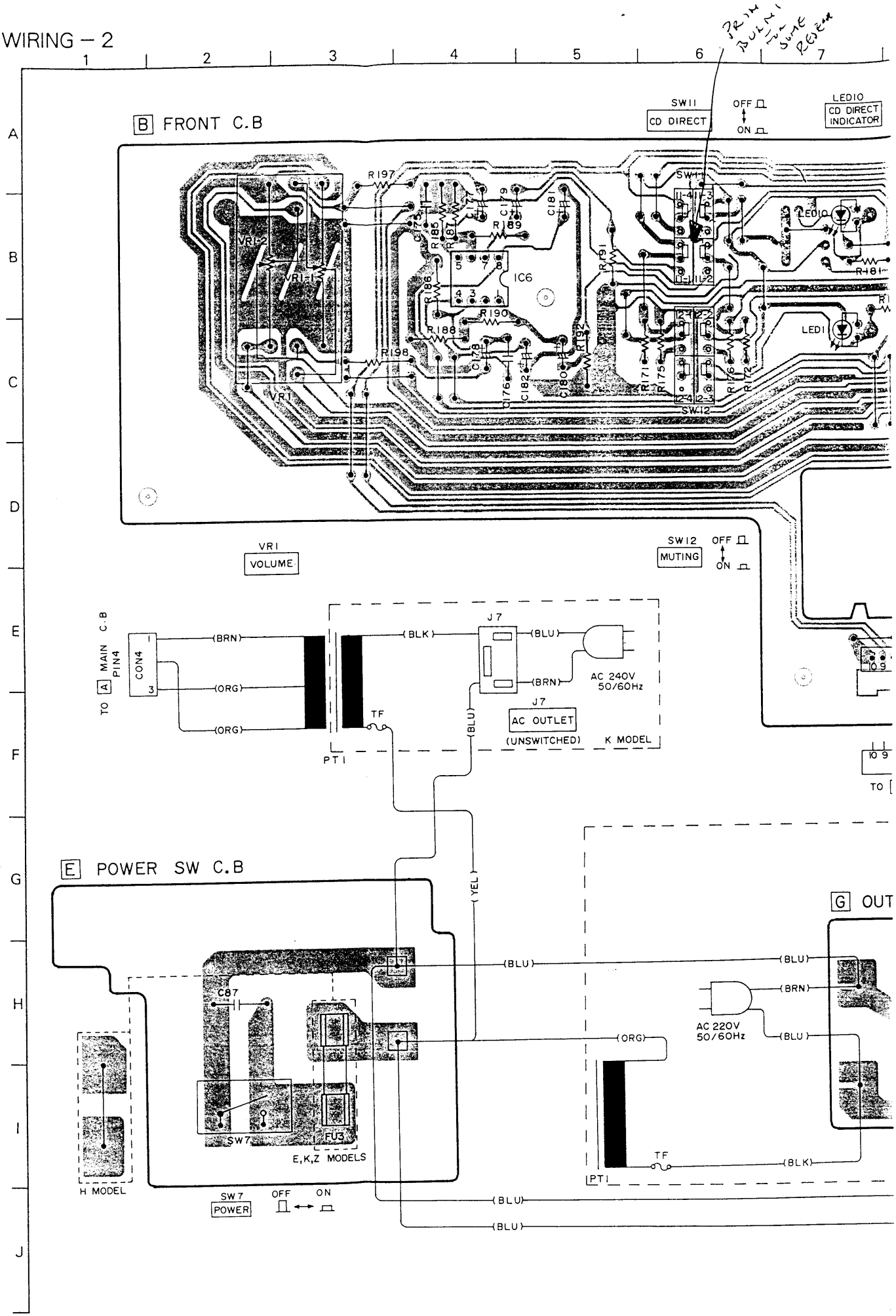
WIRING – 1

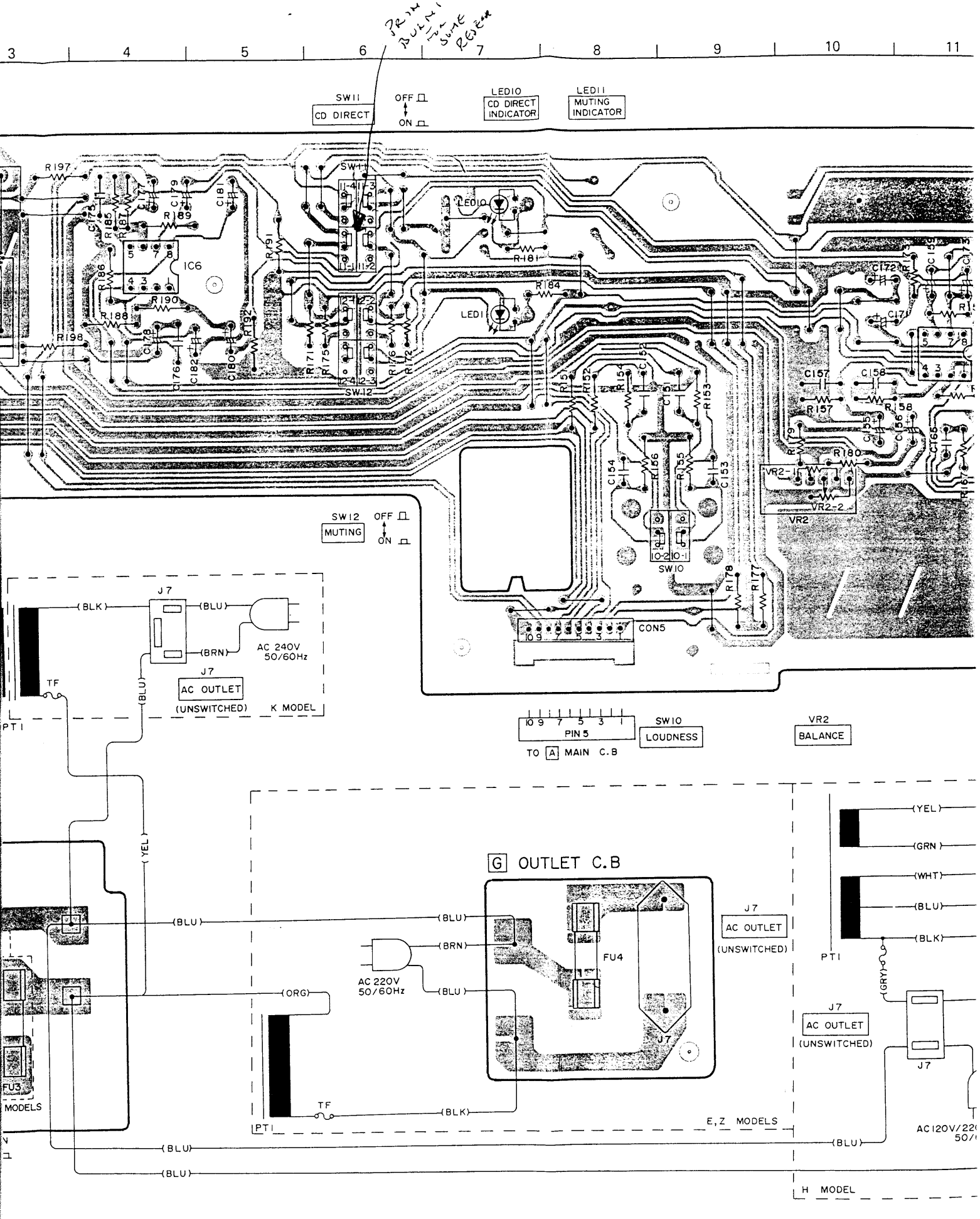

C SP TERMINAL C.B
Z MODEL
SPEAKER
J6
(GRY)
(BLK)
(BLU)
BLK
D SP + HP C.B
CON2
CON1
TO A MAIN C.B
PIN1
R143
R144
SW9
SW8
SPEAKER
J1
PHONES
SW1
PHONO
LED1
PHONO INDICATOR
SW2
TUNER
LED2
TUNER INDICATOR
SW3
CD
LED3
CD INDICATOR
SW4
VCR/AUX
LED4
VCR/AUX INDICATOR
SW5
TAPE2 /DAT
LED5
TAPE2/DAT INDICATOR
SW6
TAPE1/ MONITOR
LED6
TAPE1/ MONITOR INDICATOR
TO B FRONT C.B CON5
PIN5
IC2
Q13

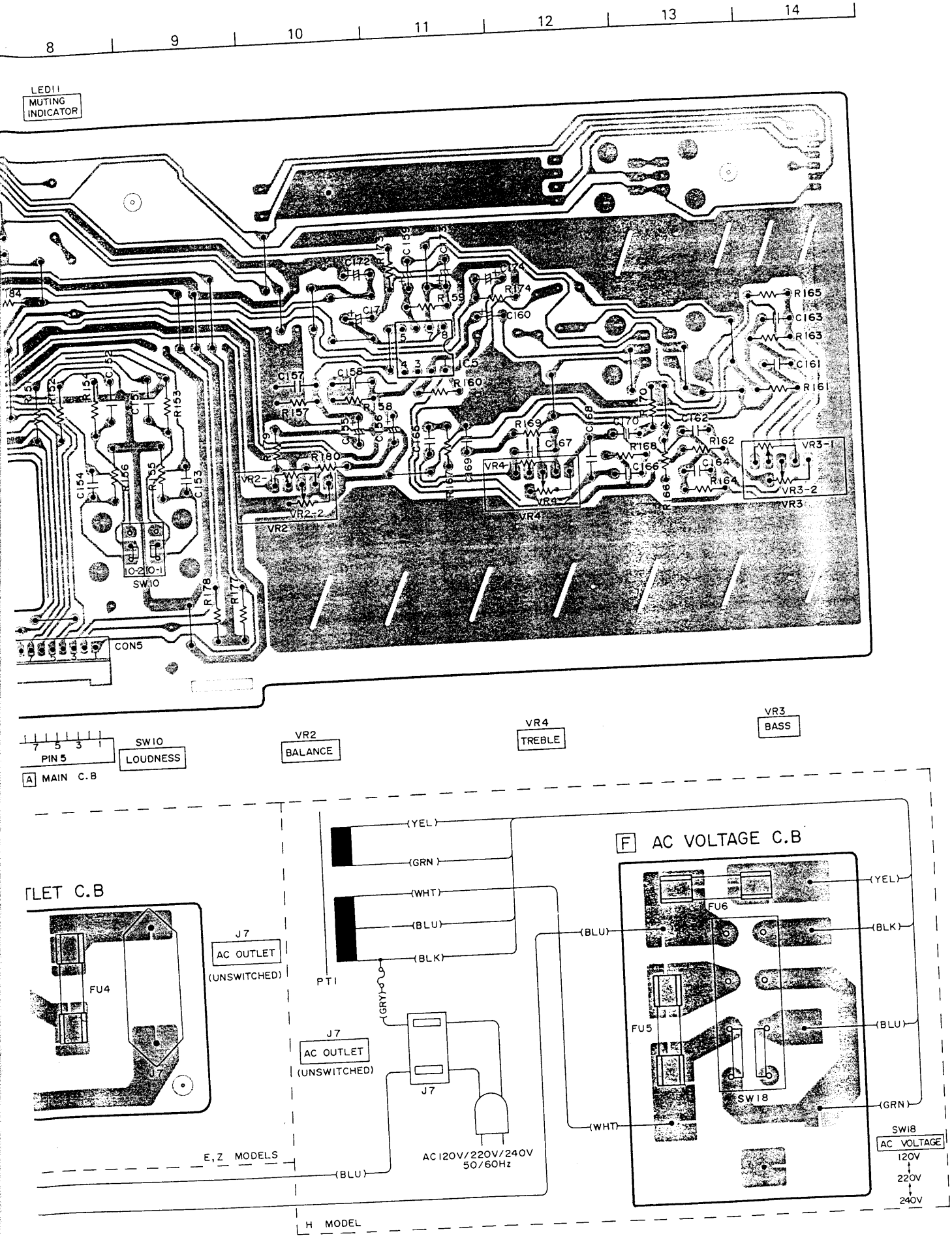

TERMINAL C.B
Z MODEL
CON3
BT1
(GRY)
(BLK)
(BLU)
BLK
Z MODEL
P C.B
CON2
(BLU)
R143
R144
SW8
SW8
A
(BLK)
(BLK)
(BLU)
(BLK)
(GRY)
CON1
TO A MAIN C.B
PIN1
J1
PHONES
SW1
PHONO
LED1
PHONO INDICATOR
SW2
TUNER
LED2
TUNER INDICATOR
SW3
CD
LED3
CD INDICATOR
SW4
VCR/AUX
LED4
VCR/AUX INDICATOR
SW5
TAPE2 /DAT
LED5
TAPE2/DAT INDICATOR
SW6
TAPE1/ MONITOR
LED6
TAPE1/ MONITOR INDICATOR
OFF ON
SW1-2
SW1-1
SW2-2
SW2-1
SW3-2
SW3-1
SW4-2
SW4-1
SW5-2
SW5-1
SW6-2
SW6-1
R33
R36
R39
R42
R45
R48
PIN5
TO B FRONT C.B
CON5
(BLK)
C36
C35
Q21
Q22
IC4
C71
R81
C72
C73
D4
C74
R95
R91
R96
R92
R93
R94
C70
R80
Q20
D7
C82
C81
C83
D5
D6
C84
R54
R56
C60
C52
R52
R102
C90
IC3
R66
R58
Q18
R70
R68
R67
D2
C46
C56
C54
SFR2
R65
D1
C51
SFR1
R60
Q17
R69
C85
C86
R55
C55
R51
C49
R53
C45
C89
C53
R57
R63
R67
R73
TP1
R59
R61
R75
R77
TH1
C57
IC2
L1
C91
C58
Q13
Q11
Q15


8
9
10
11
12
13
14
J2-1
L CH
PHONO
R CH
J2-2
J2
J2-3
L CH
TUNER
R CH
J2-4
INPUT
J3-1
L CH
CD
R CH
J3-2
J3
J3-3
L CH
VCR/AUX
R CH
J3-4
J4-1
L CH
REC OUT
R CH
J4-2
J4 TAPE2/DAT
J4-3
L CH
PLAY
R CH
J4-4
J5-1
L CH
REC OUT
R CH
J5-2
J5 TAPE1
J5-3
L CH
PLAY
R CH
J5-4
H,E,K MODELS
CON4 FROM PT1
CON1 FROM
C SP TERMINAL C.B CON3
D SP +HP C.B CON2
Z MODEL
IC4
IC3
FU1
FU2
PIN4
PIN1
TP1
TP2
SFR1
SFR2
TH2
BLK
Current Adjustment
Settings : · VOLUME : MIN
· Test point : TP1 (Lch)
TP2 (Rch)
· Adjustment location : SFR1 (Lch)
SFR2 (Rch)
Method : Connect a DC voltmeter across test Points TP1, 2 Adjust SFR1, 2 so that the voltage becomes 10 ± 1mV.

WIRING – 2

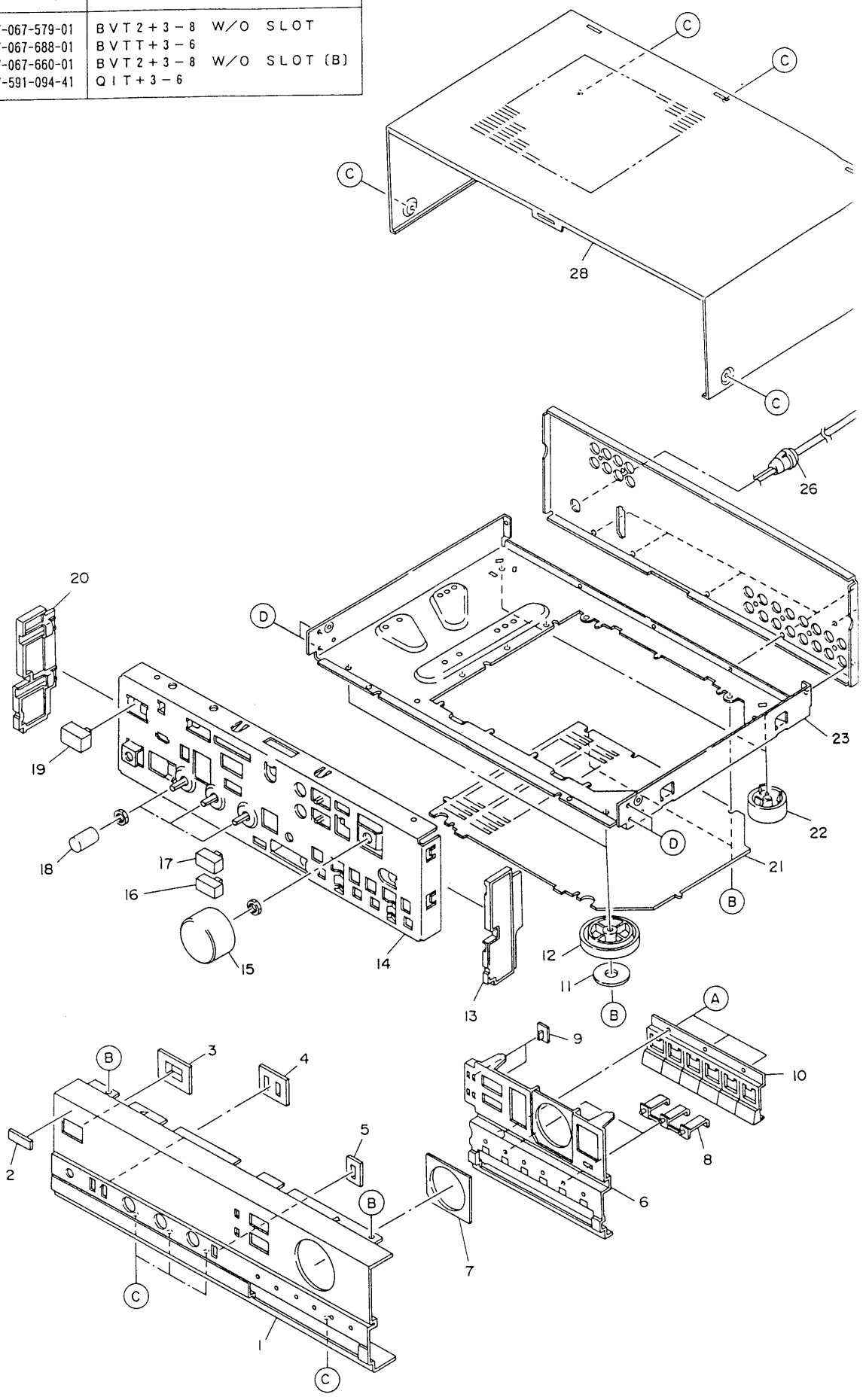

B FRONT C.B
SW11
CD DIRECT
OFF
ON
LED10
CD DIRECT INDICATOR
VR2
VR1
IC6
LED10
LED1
SW12
VRI
VOLUME
SW12
MUTING
OFF
ON
TO A MAIN C.B PIN4
CON4
(BRN)
(ORG)
(ORG)
(BLK)
J7
(BLU)
(BRN)
AC 240V 50/60Hz
J7
AC OUTLET
(UNSWITCHED)
K MODEL
TF
PT1
(BLU)
E POWER SW C.B
(YEL)
G OUT
(BLU)
(BLU)
C87
(BRN)
AC 220V 50/60Hz
(BLU)
(ORG)
SW7
FU3
E,K,Z MODELS
H MODEL
TF
(BLK)
PT1
SW7
POWER
OFF
ON
(BLU)
(BLU)
TO


3
4
5
6
7
8
9
10
11
SW11
CD DIRECT
OFF
ON
LED10
CD DIRECT INDICATOR
LED11
MUTING INDICATOR
SW12
MUTING
SW10
LOUDNESS
VR2
BALANCE
PIN 5
TO A MAIN C.B
J7
AC OUTLET
(UNSWITCHED)
K MODEL
AC 240V
50/60Hz
TF
PT1
G OUTLET C.B
AC 220V
50/60Hz
FU4
FU3
MODELS
E, Z MODELS
H MODEL
AC120V/22
50/
CON5
IC6
(BLK)
(BLU)
(BRN)
(YEL)
(ORG)
(GRN)
(WHT)
(GRY)


LED11
MUTING INDICATOR
R165
C163
R163
C161
R161
C159
C172
C174
R159
R174
C160
C157
C158
R160
R157
R158
C155
C156
C168
C169
R169
C167
C170
R168
C166
R162
C162
C164
R164
VR3-1
VR3-2
VR3
VR4
VR2-1
VR2-2
VR2
R180
C154
R156
R155
C153
R154
R153
R152
SW10
10-2
10-1
R178
R177
CON5
PIN 5
SW10
LOUDNESS
VR2
BALANCE
VR4
TREBLE
VR3
BASS
A MAIN C.B
(YEL)
(GRN)
(WHT)
(BLU)
(BLK)
PT1
(GRY)
J7
AC OUTLET
(UNSWITCHED)
J7
AC OUTLET
(UNSWITCHED)
J7
AC 120V/220V/240V
50/60Hz
E,Z MODELS
(BLU)
H MODEL
F AC VOLTAGE C.B
FU6
FU5
SW18
(YEL)
(BLK)
(BLU)
(GRN)
(WHT)
SW18
AC VOLTAGE
120V
220V
240V
FU4
J7

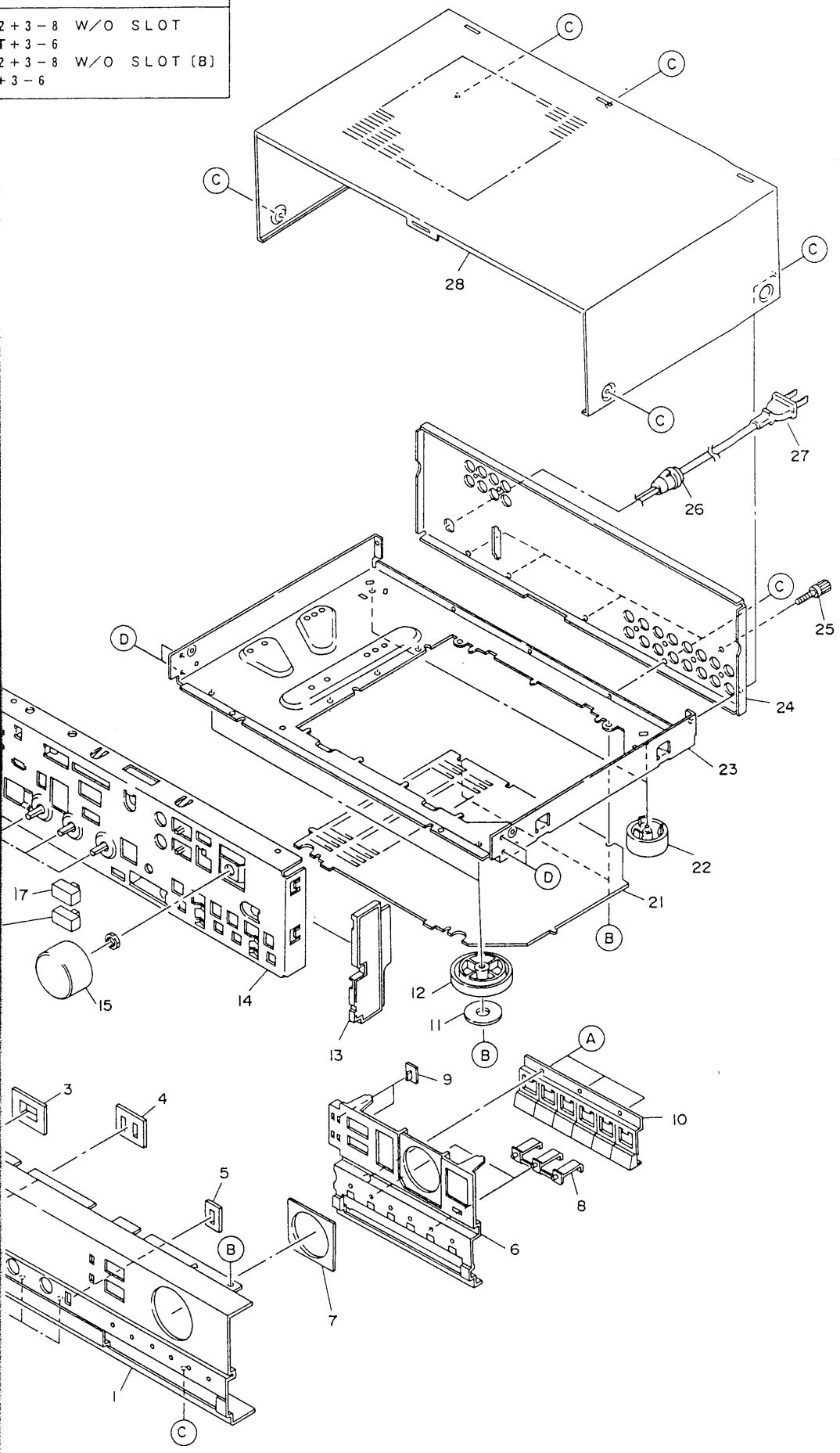
EXPLODED VIEW – 1

REF. NO.	PART NO.	DESCRIPTION
A	87-067-579-01	BVT2+3–8 W/O SLOT
B	87-067-688-01	BVTT+3–6
C	87-067-660-01	BVT2+3–8 W/O SLOT (B)
D	87-591-094-41	QIT+3–6



MECHANICAL PARTS LIST

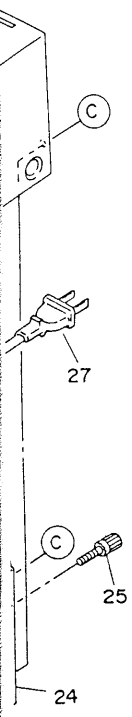
DESCRIPTION
2 + 3 − 8 W/O SLOT
T + 3 − 6
2 + 3 − 8 W/O SLOT (B)
+ 3 − 6



PART NO. CHANGED TO	REF. NO.	PART NO.
	1-1	★89-AA2-001
	1-2	84-764-009
	1-3	★89-AA1-023
	1-4	★89-AA1-026
	1-5	★89-AA1-024
	1-6	★89-AA1-025
	1-7	★89-AA1-020
	1-8	★89-AA1-021
	1-9	★89-AA1-022
	1-10	★89-AA2-006
	1-11	★84-731-027
	1-12	★84-738-022
	1-13	★89-AA1-003
	1-14	---
	1-15	★89-AA1-007
	1-16	★89-AA1-028
	1-17	★89-AA1-012
	1-18	★89-AA1-008
	1-19	★84-721-023
	1-20	★89-AA1-002
	1-21	★89-AA1-207
	1-22	★89-AA1-006
	1-23	---
	1-24	89-AA2-013
	1-24	89-AA2-010
	1-24	89-AA2-012
	1-24	89-AA2-011
	1-24	89-AA2-010
	1-25	87-033-209
	1-26	★87-085-184
	1-26	★87-085-185
	1-27	★87-034-749
	1-27	★82-187-797
	1-27	★82-187-796
	1-28	★89-AA1-004

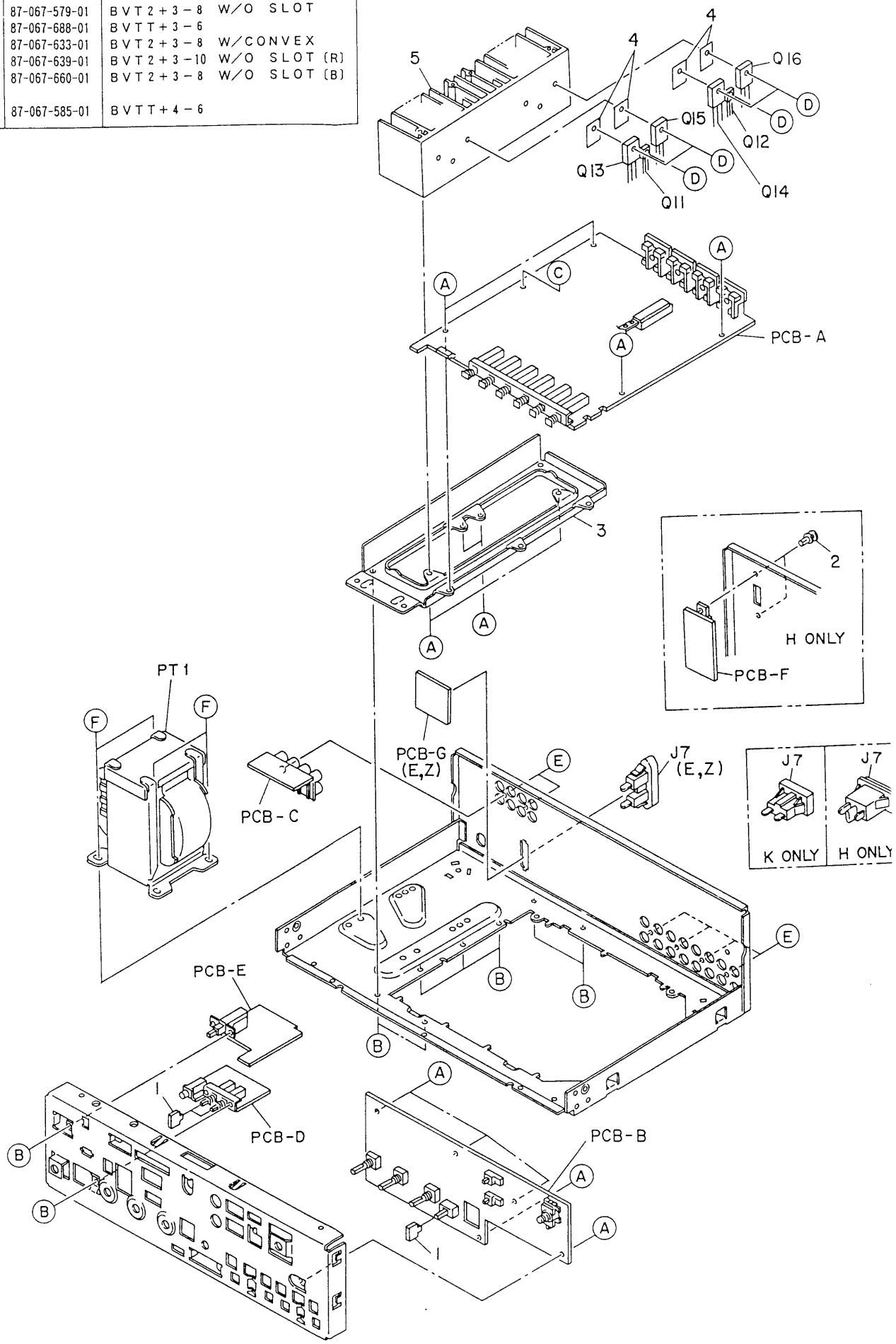
MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	1-1	★89-AA2-001-010	PANEL, FR	※	1
	1-2	84-764-009-119	BADGE, AIWA		1
	1-3	★89-AA1-023-019	GUIDE, POWER		1
	1-4	★89-AA1-026-019	GUIDE, LOUD		1
	1-5	★89-AA1-024-019	GUIDE, SPEAKER		1
	1-6	★89-AA1-025-019	HOLDER, FUNCTION		1
	1-7	★89-AA1-020-019	PLATE, VOLUME		1
	1-8	★89-AA1-021-019	GUIDE, LIGHT FUNCTION		2
	1-9	★89-AA1-022-019	GUIDE, LIGHT MUTE		2
	1-10	★89-AA2-006-019	BUTTON, FUNCTION	※	1
	1-11	★84-731-027-010	FELT, FOOT		2
	1-12	★84-738-022-010	FOOT		2
	1-13	★89-AA1-003-019	PANEL, SIDE R		1
	1-14	---	CHASSIS, FR		1
	1-15	★89-AA1-007-019	KNOB, ROTARY VOLUME		1
	1-16	★89-AA1-028-019	BUTTON, MUTE		1
	1-17	★89-AA1-012-019	BUTTON, DIRECT		1
	1-18	★89-AA1-008-019	KNOB, ROTARY BALANCE		3
	1-19	★84-721-023-010	PUSH BUTTON POWER		1
	1-20	★89-AA1-002-019	PANEL, SIDE L		1
	1-21	★89-AA1-207-019	PLATE, BOTTOM		1
	1-22	★89-AA1-006-010	FOOT		2
	1-23	---	CHASSIS, MAIN		1
	1-24	89-AA2-013-019	PANEL, REAR (H)	※	1
	1-24	89-AA2-010-191	PANEL, REAR (HJ)	※	1
	1-24	89-AA2-012-019	PANEL, REAR (E)	※	1
	1-24	89-AA2-011-019	PANEL, REAR (K)	※	1
	1-24	89-AA2-010-019	PANEL, REAR (Z)	※	1
	1-25	87-033-209-01	TERMINAL EARTH		1
	1-26	★87-085-184-019	BUSHING AC CORD (H)		1
	1-26	★87-085-185-019	BUSHING AC CORD (E, K, Z)		1
	1-27	★87-034-749-019	AC CORD (H)		1
	1-27	★82-187-797-019	AC CORD (E, Z)		1
	1-27	★82-187-796-019	AC CORD (K)		1
	1-28	★89-AA1-004-010	CABINET, MAIN STEEL		1

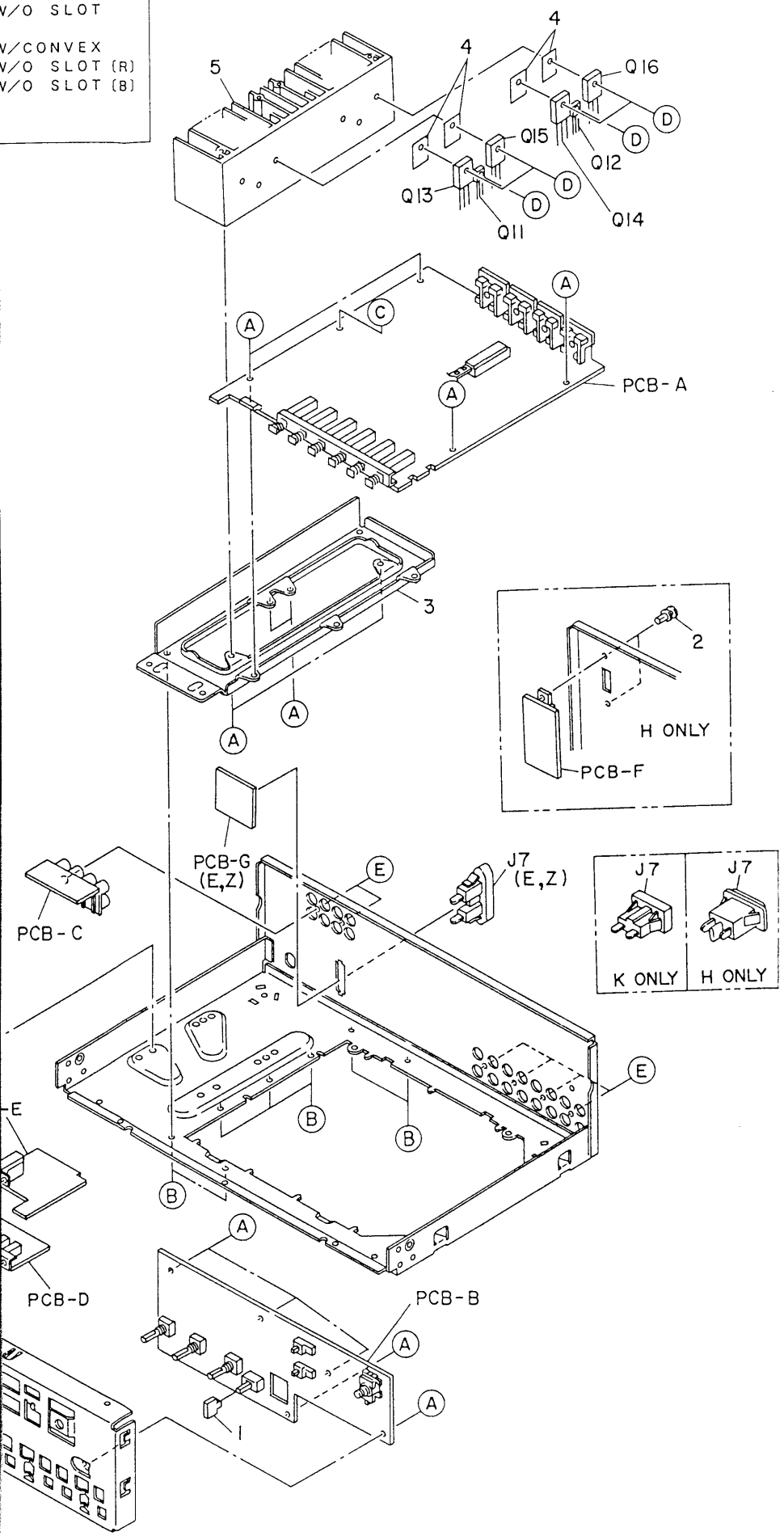


EXPLODED VIEW – 2

REF. NO.	PART NO.	DESCRIPTION
A	87-067-579-01	BVT2+3-8 W/O SLOT
B	87-067-688-01	BVTT+3-6
C	87-067-633-01	BVT2+3-8 W/CONVEX
D	87-067-639-01	BVT2+3-10 W/O SLOT (R)
E	87-067-660-01	BVT2+3-8 W/O SLOT (B)
F	87-067-585-01	BVTT+4-6



RIPTION
V/O SLOT
V/CONVEX V/O SLOT (R) V/O SLOT (B)



PART NO. CHANGED TO	REF. NO.	PART NO.
	2-1	★89-AA1-011-019
	2-2	★87-084-063-019
	2-3	---
	2-4	89-AA1-602-01
	2-5	---

■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.
	1	★89-AA2-911-119
	2	★87-032-845-019

M
8C

em

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	2-1	★89-AA1-011-019	BUTTON, LOUD		3
	2-2	★87-084-063-019	RIVET NYLON 3-5.5		2
	2-3	---	HOLDER, HEET SINK		1
	2-4	89-AA1-602-01	SHEET		4
	2-5	---	HEAT SINK ASSY		1

■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	1	★89-AA2-911-119	INSTRUCTION BOOKLET E/K/Z	※	1
	2	★87-032-845-019	PLUG SIEMENS (H)		1